

# **“A Is for Atom, B Is for Bomb”: Civil Defense in American Public Education, 1948–1963**

**JoAnne Brown**

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For we live under continual threat of two equally fearful, but seemingly opposed, destinies: unremitting banality and inconceivable terror.

—Susan Sontag, 1977

Among the artifacts at the National Air and Space Museum, often unnoticed against the vaulting glass and girder ceiling and amid more imposing historical treasures like the *Spirit of St. Louis*, is a small object whose appearance in the October skies of 1957 marked a new age in Soviet-American relations. It seemed to spark unprecedented national debate over the quality of education in the United States and about the implications of education for national security. The silvery sphere called *Sputnik*, with its cat whisker antennae and tiny circumference, has the whimsical, almost endearing, appearance of a Steven Spielberg creation. Visitors to the museum express amazement that *this* could have caused so much fuss. *Sputnik* may have been significant in military and technological terms. But the educational debate symbolized by the *Sputnik* challenge, centering on the critical importance of education to national defense, emerged a decade earlier, in quite a different context. *Sputnik* preceded by only a year the legislation granting federal funds to education under the 1958 National Defense Education Act, so it has become a convenient explanation for the success of educators' lobbying effort. *Sputnik* dramatized the effort, but it did not instigate it. The struggle for federal aid may have been won in the sky, but it was fought in the basements, classrooms, and auditoriums, as educators adapted schools to the national security threat of atomic warfare and claimed a proportionate federal reward for their trouble.<sup>1</sup>

In the decade after Hiroshima a new kind of national defense emerged in the United States and found a comfortable place alongside established school practices and educators' prevailing professional concerns. The new stratagem was called civil

JoAnne Brown is assistant professor in the Department of History of the Johns Hopkins University. The author wishes to thank Stephen P. Kretzmann, Paul Boyer, Murray Edelman, Ronald G. Walters, Allan M. Winkler, David Thelen, and Susan Armeny.

<sup>1</sup> The National Air and Space Museum holds a replica of the actual satellite. On *Sputnik* and education, see James B. Conant, *My Several Lives: Memoirs of a Social Inventor* (New York, 1970), 621; and Joel Spring, *The Sorting Machine: National Educational Policy since 1945* (New York, 1976), 38, 96, 97.

defense.<sup>2</sup> The promoters of civil defense used—and were used by—champions of public education, with significant consequences for the extent and character of civil defense teachings in the public schools. Teachers, principals, educational planners, and education reformers used civil defense, as they have often used topical ideas, as a political symbol to advance their more immediate professional concerns. In so doing, they fortified the symbolic and institutional links between education and national defense and bolstered the logic under which federal aid to education was finally granted in 1958, under the legislative title of the National Defense Education Act. The mundane institutional and professional concerns of school people and the ongoing campaign for federal aid to public schools directly affected what children learned in school about the threat of nuclear war and the possibility of defense against it.

During World War II, “civilian defense” in America meant participation in scrap drives, blackout drills, refugee relief activities, and conservation of scarce resources. For many Americans, it meant nothing more baleful than tending a Victory garden and putting up cheerfully with rationing. It meant taking a job in a factory and giving it up graciously to a veteran at war’s end.<sup>3</sup> There were “brownouts” in major cities, and fashion designers suggested stylish reflective anklets for women walking dark streets at night. An enemy attack on the mainland was not a continual major concern of civilian defense.

By such measures, women, men, and children maintained domestic morale while materially supporting the war effort. But as relations between the United States and the Soviet Union began to deteriorate after the war, civilian defense became a much more serious matter. When the Soviets detonated an atomic bomb on August 29, 1949, and subsequently demonstrated their ability to deliver such a bomb to the American mainland, Americans lost the illusion of safety, such as it was. Acknowledging the grim new reality, President Harry S. Truman in January 1951 created a new federal organization to limit civilian vulnerability to Soviet atomic attack: the Federal Civil Defense Administration (FCDA). The new agency consolidated the functions of the wartime Office of Civil Defense and the postwar National Security Resources Board.<sup>4</sup>

From the beginning, the FCDA was defined as a supervisory and inspirational agency, which left practical implementation and funding responsibilities to state

<sup>2</sup> For a different view, see Michael J. Carey, “The Schools and Civil Defense: The Fifties Revisited,” *Teachers College Record*, 84 (no. 1, 1982), 115–27.

<sup>3</sup> For an argument that many women were reluctant to give up wartime paid employment despite the urgings of government and popular media propaganda, see Maureen Honey, *Creating Rosie the Riveter: Class, Gender, and Propaganda during World War II* (Amherst, 1984); and Susan M. Hartmann, *The Home Front and Beyond: American Women in the 1940's* (Boston, 1982).

<sup>4</sup> On the rapid transformation of the Soviet Union from ally to enemy, see Walter LeFeber, *The Origins of the Cold War* (New York, 1971); Walter LeFeber, *America, Russia, and the Cold War* (New York, 1976); Daniel Yergin, *Shattered Peace: The Origins of the Cold War and the National Security State* (Boston, 1977); and Stephen Ambrose, *Rise to Globalism: American Foreign Policy since 1938* (New York, 1971). On the Federal Civil Defense Administration, see John L. Andriot, ed., *Guide to U.S. Government Publications, vol. II: Non-Current Agencies* (McLean, 1985), 116. In 1948, before the first Soviet atomic bomb, the physicist Ralph Lapp described the effects of an atomic bomb on an American city. See Allan M. Winkler, “A Forty-Year History of Civil Defense,” *Bulletin of the Atomic Scientists*, 40 (June/July 1984), 16.

and local governments. It did not allocate federal resources to civil defense projects; the FCDA produced educational and propaganda materials intended to mobilize state and local agencies, as well as private individuals, to spend their own funds to implement programs. Although the FCDA did not limit its educational activities to the public schools, it found in the schools a system for conveying information to the public. Television was apparently not widely used; although in 1951 NBC ran a seven-part series called "Survival" that reached twelve million people, the FCDA preferred film, print, and radio for delivering its official message during the 1950s. Materials intended for use in schools constituted a large portion of all FCDA publications.<sup>5</sup>

Without federal funding, state and local agencies responded to the new civil defense directives as best they could, using extant institutions and budgets. That structural, economic situation influenced the cultural content of the civil defense program: Because money came from other budgets, civil defense programs had to be justified in terms consonant with the purposes of those budgets. Because the new civil defense required a massive information campaign to redefine the concept of civil defense and to gain popular support, existing educational institutions were the logical place to begin, as federal civil defense officials recognized. Moreover, the public schools were a channel for the mass education of parents as well as children.<sup>6</sup> For their part, public school officials recognized in the new civil defense an opportunity to serve their country while fortifying their profession. The new civil defense ultimately allowed educators to demonstrate the importance of the nation's schools to national security, thereby justifying federal aid to education.

Just as civil defense activities and the language of national defense amplified educators' plea for federal subsidies to education, so did other contemporary pedagogical concerns create opportunities for civil defense professionals to bring their message into the schools. Not only the drive for federal aid, but increased competition from the new mass media for the attention of young minds, a critical and aggressive "back-to-basics" movement within professional schools of education, and relentless ideological attacks on progressive educational policy from right-wing anticommunists all helped open school doors to civil defense.<sup>7</sup>

In the early 1950s, as in the late 1980s, educators in the public schools found

<sup>5</sup> Neal Fitzsimons, "Brief History of American Civil Defense," in *Who Speaks for Civil Defense?* ed. Eugene P. Wigner (New York, 1968), 28–46; W. Gayle Starnes, "Schools and Civil Defense," *American School Board Journal*, 135 (Aug. 1957), 21–22; James M. Ridgway, "Education's Policy for Planning and Action in Civil Defense," *ibid.*, 120 (March 1950), 24. On "Survival," see Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York, 1985), 325.

<sup>6</sup> Leon Weaver, "Civil Defense Training," *Adult Education*, 3 (Nov. 1952), 32; Clyde W. Meredith, "Civil Defense and the Schools," *School Life*, 34 (April 1952), 99; William M. Lamers, "A Civil Defense and Disaster Program," *Safety Education*, 38 (Jan. 1959), 2–3.

<sup>7</sup> Spring, *Sorting Machine*, 1–51; Mary Anne Raywid, *The Ax-Grinders: Critics of Our Public Schools* (New York, 1962); Richard Hofstadter, *Anti-Intellectualism in American Life* (New York, 1963). On competition between the mass media and the schools for ownership of atomic issues, see Robert A. Luke, "The Educational Requirements of Civil Defense," *Adult Education*, 1 (Feb. 1951), 90. On general competition for the minds of the young, see "Educators Score Television Victory," *National Elementary Principal*, 30 (June 1951), 33. On worries about television's influence on young people, see James Gilbert, *Cycle of Outrage: America's Reaction to the Juvenile Delinquent in the 1950s* (New York, 1986).

themselves under attack for alleged weaknesses in pedagogy and curriculum that were blamed for many perceived weaknesses in the national character. Critics identified themselves variously with the “Americanism Education League”; the “Beverly Hills Freedom Club”; the “Constitution Party” of Virginia, California, Indiana, or Illinois; the “Defenders of American Education”; the “Patriotic Research Bureau”; or the national and state “Coalitions of Patriotic Societies.” After 1948 the self-described activities of such organizations ranged from challenging particular textbooks and teacher loyalties, to protesting “Progressive” education methods, godlessness, relativism, and general “softness” in the curriculum. Critics indicted “Progressive” education as “REDucation” and teachers as “little red hens” poisoning young minds with communistic ideology. The common basis of this wide-ranging criticism was not educational but geostrategic: weakness in the classroom meant weakness in the dangerous postwar world. Organized educators ultimately responded in kind, arguing that education promised to redeem and defend American greatness at home and abroad. The National Education Association’s National Commission for the Defense of Democracy through Education was but one, most concerted, response to school critics.<sup>8</sup>

Civil defense represented many educators’ broader tendency to acquiesce, however ambivalently, in a national defense justification for curriculum, pedagogy, and architecture. It enabled school professionals to claim for educational purposes a share of a federal budget increasingly devoted to defense and to partake of a political culture increasingly defined by “national security.” Emergent civil defense professionals and embattled school professionals developed a kind of symbiotic relationship in the 1950s that determined what kind of information about nuclear war reached an entire generation of schoolchildren.<sup>9</sup>

Relatively little of this information was of a curricular nature, containing scientific, sociological, or historical subject matter; the impact of the Bomb on the schools was primarily structural and extracurricular. This was due in part to the sheer absence of public information about the known effects of the atomic bomb. The Atomic Energy Commission misled the public in its informational literature, minimizing the real and known effects of atomic radiation and working itself with faulty scientific appreciation of the medical effects of radiation exposure. While the Bomb had little overt effect on curriculum during the 1950s, changes came in the form of civil defense drills, new identification programs for schoolchildren, innovations in school architecture, new emphasis on community-school relations, and

<sup>8</sup> For a sociological account of the attacks on the schools, see Raywid, *Ax-Grinders*, esp. 12–21 (on the attackers), vii (on the National Education Association’s response). For an example of the anticommunist arguments, see Kitty Jones and Robert Olivier, *Progressive Education Is REDucation* (Boston, 1956). On the historical connections between education and democracy, see a history of education written during the controversy: Rush Welter, *Popular Education and Democratic Thought in America* (New York, 1962). See also Raywid, *Ax-Grinders*, 10–21, 222–25.

<sup>9</sup> Other, indirect sources of learning about atomic warfare—including films, television programs, radio programs, museum displays, and traveling exhibits—are not addressed in this essay. Children also learned from their parents. My immediate concern is with the interaction between the professional goals of the people charged with education, and the content of “atomic” lessons in the formal school setting. For a more general study of “atomic culture,” see Boyer, *By the Bomb’s Early Light*.

greater interest in child psychology. Yet where dramatic practical changes seemed to occur, they often advanced old ideas; where new ideas arose, they often justified old practices.<sup>10</sup>

### The Postwar Mood

Between 1945 and 1949 those who spoke for public schools characteristically voiced the most optimistic of popular visions for the future: the promise of peaceful world government embodied in the United Nations. In its official representations the teaching profession did not enthusiastically embrace anticommunism but held to a naive, even romantic, optimism about the possibilities of world peace. That optimism may account for the widespread political criticism of the schools; the schools, even against the communities they served, appear to have been bastions of liberalism during the early years of the Cold War. Professional journals directed toward teachers and principals were filled, even to the advertisements for Wrigley's chewing gum, with expressions of this hopeful vision. During the first few years of the atomic age, the most widely cited opinions about international politics and educational imperatives were those of the atomic scientists: Hans Bethe, J. Robert Oppenheimer, Leo Szilard, Edward Condon, and their liberal colleagues. The scientists entered politics with the compelling slogan "One World or None," a romantic blend of the atomic threat with the United Nations hope. We must govern the new atomic technology through the global government of the United Nations, the argument went, or it will destroy us all. Between 1945 and 1949, publications by and for teachers were dominated by the One World theme.<sup>11</sup>

By the end of 1947, as relations between the United States and the Soviet Union deteriorated, so did the premises undergirding the One World idea. A new idea became fashionable among educational writers: Atomic energy held enormous potential for good that would be realized only if the new technology were greeted with calm acceptance. The new idea became known as the "peaceful atom," and many educational writers took it up with enthusiasm and relief, evidently anxious to distance themselves from the increasingly damaging association of the One World idea with romantic communism. As the decade of the fifties progressed, a newly defined ideal of "maturity" encouraged Americans to greet the Bomb calmly; in the

<sup>10</sup> Robert A. Divine, *Blowing on the Wind: The Nuclear Test Ban Debate, 1954-1960* (New York, 1978), 36-57. On the scientific understanding of fallout during this period, see U.S. Congress, Special Subcommittee on Radiation of the Joint Committee on Atomic Energy, *Hearings*, 86 Cong. 1 sess., 1959; J. O. Hirschfelder, ed., *The Effects of Atomic Weapons* (New York, 1950), 273-74. *Time* described the atomic bomb as "new, energized oats for every old hobby." See "The Atomic Age," *Time*, Oct. 29, 1945, p. 30, cited in Boyer, *By the Bomb's Early Light*, 40. Boyer cites an earlier version of this paper, for its discussion of that point, *ibid.*, 327n17.

<sup>11</sup> Arthur Zilversmit, "The United Nations in School Curricula," paper presented at the History of Education Society meeting, Pittsburgh, Oct. 1981 (in JoAnne Brown's possession); Boyer, *By the Bomb's Early Light*, 76-81; JoAnne Brown, "Education and Acquiescence: The Political Rehabilitation of Atomic Energy in the Educational Press, 1945-1949," paper presented at the History of Educational Society meeting, Pittsburgh, Oct. 1981 (in Brown's possession). The "One World" idea was hardly new. See Boyer, *By the Bomb's Early Light*, 76. On the atomic scientists' political activities, see Alice Kimball Smith, *A Peril and a Hope: The Scientists' Movement in America* (Chicago, 1965). Educational journalists tended not to differentiate among the atomic scientists, but to cite them wholesale as technical and social authorities.

shadow of the Soviet A-bomb, the atomic scientists' idealism seemed romantic at best, dangerous at worst. Technological optimism replaced sociological optimism. Hard-headed, unsentimental, adult attitudes—rather than romantic faith—seemed appropriate to educators already beleaguered by critics, scarcity of resources, and a deluge of new pupils.<sup>12</sup>

Like the One World idea, the peaceful atom provided ample opportunity for educational speechmaking and pedagogical innovation. "Why not keep the bright side of the atomic energy picture in the center of our attention?" suggested a booklet for high school students.<sup>13</sup> But the peaceful atom remained a powerful slogan for educators only until mobilization began for the Korean War. After June 1950, just as the babies conceived after V-J Day were being registered for kindergarten classes, mobilization put severe strains on public school resources, imposing rationing on building materials for badly needed new classrooms, drawing teachers and older students into combat and other war service, and shifting public attention away from ordinary domestic life.

While fighting intensified in Korea, political assaults on the public schools fostered a siege mentality among educators at home. "The phraseology and reaction of educators often made them appear as warriors doing battle with an enemy that was storming the walls of the public schools," one historian of education has observed. "Words like *attack*, *counterattack*, and *siege* were hurled around to describe the plight of the professional educator."<sup>14</sup>

The attacks on public schools came primarily from two quarters: from anticommunist reformers such as Kitty Jones, William F. Buckley, Jr., Allen Zoll, and the National Council for American Education and from critics of "anti-intellectualism" in the schools such as the University of Illinois historian Arthur Bestor. The former saw the vestiges of John Dewey's socialistic Progressivism as the gravest threat to American education; the latter saw the federal policy of "life adjustment education" as dangerously anti-intellectual.<sup>15</sup>

<sup>12</sup> The emphasis on calm acceptance of the Bomb coincides with the so-called ideology of maturity. See William Graebner, "Coming of Age in Buffalo: The Ideology of Maturity in Postwar America," *Radical History Review*, 34 (Jan. 1986), 53–74. On the desirability of emphasizing the "bright side" of atomic energy, see the curricular materials published jointly by the Atomic Energy Commission (AEC) and the National Education Association (NEA) including Hubert M. Evans, Ryland W. Crary, and C. Glen Hass, *Operation Atomic Vision: An Educational Operation to Increase the Public Understanding of Atomic Energy for Peacetime Living* (Washington, [1948]). See also Gordon Dean, "The Atomic Age Moves Forward," *School Life*, 35 (Sept. 1953), 148–59, esp. 156, 159. On the larger problems of American socialism and communism, see Christopher Lasch, *The Agony of the American Left* (New York, 1969), 40–59; and Warren Susman, *Culture as History: The Transformation of American Society in the Twentieth Century* (New York, 1984), 75–85. John H. Moehle, "Civil Defense Begins with You," *New York State Education*, 39 (Dec. 1951), 210. The injunction to calmness appears in a subhead: "Let's Not Get Panicky," *ibid.*

<sup>13</sup> The AEC had its own separate educational agenda; it published curricular materials in cooperation with the NEA. See the representative booklet, Evans, Crary, and Hass, *Operation Atomic Vision*; and George L. Glasheen, "What Schools Are Doing in Atomic Energy Education," *School Life*, 35 (Sept. 1953), 152–54, 159.

<sup>14</sup> Spring, *Sorting Machine*, 3; Earl McGrath, "Education and National Defense," *School Life*, 33 (Nov. 1950), 18–23.

<sup>15</sup> See Arthur Bestor, *Educational Wastelands: The Retreat from Learning in Our Public Schools* (Urbana, 1953). A second edition was published in 1985. Raywid, *Ax-Grinders*, 35–47. "Life adjustment education" was designed to teach children to function in the "real world." It included curricula on how to dress, how to get a job, and how to use the telephone. On American school curricula, see Herbert M. Kliebard, *The Struggle for the Amer-*

Thus when the new promoters of federally sponsored civil defense efforts sought to carry their message into American homes, they found educators in an extremely cooperative mood, eager to show their loyalty and worth by contributing to the national defense. In fact, educators sometimes seemed more anxious to help the FCDA promote civil defense than the FCDA was to use their help. Civil defense was clearly anticommunist. At the same time, although it was compatible with the federal Office of Education's life adjustment agenda, it was less frivolous than most subject matter in the life adjustment curriculum (for example, telephone manners and good taste in dress). Civil defense in the schools thus deflected both kinds of criticism of education: By its overt patriotic appeal, it answered the anticommunist critics; by its embodiment of the principles of life adjustment in the most serious of contexts, it absorbed the criticisms of Bestor and like-minded intellectuals.<sup>16</sup>

Teachers, principals, and superintendents had complicated and varied reasons for overwhelmingly supporting—rather than criticizing, actively opposing, or simply ignoring—civil defense activities in the 1950s. Among the reasons were genuine fears about the possibility of war with the Soviets and the widespread belief that atomic weapons were just like conventional weapons, only bigger, and therefore answerable by civil defense measures. Many educators also expressed fear of ideological defeat by totalitarian and communist philosophies and held “education for democratic citizenship” to be more than an empty slogan. Many were presumably retreating from right-wing critics’ attacks on “progressive” education. Most significant, however, was the opportunity represented by civil defense to *do something* about the threat of atomic attack, to participate in the brave new world of the atom.

What is striking about educators’ response to civil defense in the 1950s is its public uniformity, in contrast to the diversity of educational opinion on world affairs during the immediate postwar years and again during the 1960s. During the fifties, writers in educational journals enthusiastically endorsed President Truman’s proclamation “Education is our first line of defense.”<sup>17</sup> The decade marked a confluence of educators’ diverse political and pedagogical motives and ideals that brought different people and institutions to work under the civil defense banner for a variety of reasons.

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ican Curriculum, 1893–1958 (New York, 1986). On life adjustment education, see H. R. Douglas, “Education for Life Adjustment,” *Education Digest*, 16 (May 1951), 42–44; Arthur E. Bestor, Jr., “Life Adjustment Education: A Critique,” *American Association of University Professors Bulletin*, 38 (Sept. 1952), 413–41.

<sup>16</sup> Educators did not uniformly acquiesce in their new national security role. Those who resisted, however, typically did not voice their resistance by challenging the emphasis on national security but instead argued at other levels for the democratic values of tolerance and intellectual freedom. Evidence suggests that attitudes toward civil defense were positive and stable over time at least until 1970; even during the debate precipitated by the Berlin crisis, in 1961, people argued not over whether to support civil defense, but over where shelters should be and how they should work. See U.S. Department of Defense, Office of Civil Defense, *Civil Defense and the Public: An Overview of Public Attitude Surveys* (Washington, [Oct. 1971]), 1, 30, 1–43. On civil defense as a patriotic duty, see Clara P. McMahon, “Civil Defense and Educational Goals,” *Elementary School Journal*, 53 (April 1953), 440–42.

<sup>17</sup> Meredith, “Civil Defense and the Schools,” 99; Charles A. Quattlebaum, “Federal Activities in Education for the Defense of the United States,” *Education*, 72 (June 1952), 693.

## The Real Dangers: Anxiety and Panic

In educational journals of the fifties and early sixties, many more authors supported civil defense activities in the schools than questioned them, but supporters and critics alike used the specter of panicky children in their arguments about civil defense programs in the schools. Given the vigor of anticomunism during the postwar years and its accomplishments<sup>18</sup> in ridding schools of accused Progressives, it is surprising that *any* educator spoke out against civil defense. The few who did generally argued in psychical, rather than political, terms. As the executive secretary of the California Teachers' Association, A. F. Corey, noted dryly in 1951, "Frightened children scanning the sky for Russian bombers is not a healthy aspect of national security." Another rare critic was university professor Howard A. Lane, a holdover from the days of One World optimism. "The current press abounds," he observed in 1951, "in pictures of teachers standing grimly erect over children prostrate in cover-drill." Lane worried that school lessons on the dangers of communism and loose talk about civil defense at home might combine to frighten children needlessly. Children were being taught in school that "communists are bad men that want to kill us"; they then might overhear their parents remark that "the neighbor who raises questions about the local civilian defense program is probably a communist!" Lane recommended curricular changes: "hard, realistic study" of Russia, southeast Europe, and Asia. Lane suggested that children really needed protection from "overwrought, anxious parents."<sup>19</sup>

Skeptics like Corey and Lane aroused suspicion in their fellow educators. Typical was health educator Mary E. Meade's oblique condemnation of civil defense critics, published in the spring of 1952 in the bulletin of the National Association of Secondary School Principals: "many people feel that some of these criticisms emanate from groups suspected of subversive activities." Meade confirmed this popular judgment: "Unless there is a group bent on causing trouble, understanding of the reasons for the drills and 'dog tags' removes the opposition." Citing recent disclosures of spying and "infiltration," Meade was certain that "even the most liberal skeptic who wants to believe that Russia really wants peace" must be shaken by the "pathetic disillusionment of ex-members and fellow-travellers."<sup>20</sup>

Prevention of dangerous emotional trauma, most educators argued, depended on teachers' and parents' calm presentation of civil defense information to children. Neither the presumed necessity for civil defense routines nor their practical effectiveness was at issue. Adults must set their own "emotional houses in order," then help children to do so. As Detroit Superintendent of Health and Physical Education

<sup>18</sup> Raywid, *Ax-Grinders*, 69–83; A. F. Corey, editorial, *School Executive*, 70 (April 1951), 67; Howard A. Lane, "What Are We Doing to Our Children?" *National Elementary Principal*, 30 (June 1951), 6–7. The shift toward "realism" was evident in the larger world government movement. See Stephen King-Hall, "World Government or World Destruction?" *Reader's Digest*, 47 (Nov. 1945), 16. For typical examples of the pervasive anxiety of the time, see *Childhood Education*, 28 (Sept. 1951).

<sup>19</sup> Mary E. Meade, "What Programs of Civil Defense Are Needed in Our Schools?" *Bulletin of the National Association of Secondary School Principals*, 36 (April 1952), 183–84.

Delia P. Hussey heartily urged, “The prevention of traumatic experiences which may leave indelible marks on their attitude toward life is the great and exciting challenge.”<sup>20</sup>

As early as 1951 the National Parent-Teachers Association (PTA) was ready to meet this challenge. Leaders urged members to develop a “positive mental health program” in response to atomic anxiety. Parents and teachers should take “particular care not to become unduly emotional over newspaper headlines and news broadcasts.” There was double danger in undue emotion: In the short term, it admitted panic in the event of a “disaster” or “emergency”; in the long term, an anxious child would become a neurotic adult. The future mental health of an entire generation depended upon parents’ and teachers’ abilities to “maintain calmness and transmit a feeling of assuredness.” Children must be taught to “meet squarely” the “emergencies” they might face, including atomic bombardment.<sup>21</sup>

Panic was the present danger of atomic war; typically, educational journalists did not discuss the Bomb’s other effects: death, massive injuries, shock, blindness, burns, radiation sickness, and secondary social effects.<sup>22</sup> Writing in the *Journal of Education* in 1954, L. J. Mauth advised teachers to “guide children into developing a matter-of-fact attitude toward the entire matter of civil defense.” “Such precautions are simply insurance, and do not differ significantly from other similar plans,” Mauth explained. “It is simply wiser to be prepared than to be taken by surprise.” Mauth considered “panic and hysteria” “undesirable forms of response” under any circumstances and warned that undue emotion could lead to “mass catastrophe” in the event of enemy attack. Referring, not to war, but to panic, Mauth exhorted every teacher to “assume the responsibility of such a calamity by considering conscientiously and carefully what must be done to prevent it.”<sup>23</sup>

“Let’s not get panicky,” another educator warned his colleagues. “Fear, confusion, outbursts of anger or irritability, excessive disciplinary trends or the manifestation of teacher anxiety all are readily sensed by children and do much to undermine their morale.” To safeguard their children’s mental health, teachers and parents must exercise full control over their own emotional response to the Bomb. In discussions of atomic war, “the adult in the situation . . . should maintain a reassuring and confident manner,” one writer advised, “so that the discussion will reduce itself to the matter-of-fact consideration of the day’s events.”<sup>24</sup>

Educators in the early fifties were justified in fearing panic. In 1938 the radio

<sup>20</sup> Moehle, “Civil Defense Begins with You,” 210; Delia P. Hussey, “New Responsibilities in Physical Education and Recreation,” *National Elementary Principal*, 30 (June 1951), 18.

<sup>21</sup> “A Civil Defense Program for Parent-Teacher Associations,” *National Parent-Teacher*, 45 (June 1951), 34–35, 21.

<sup>22</sup> Jonathan Schell, *The Fate of the Earth* (New York, 1982), esp. 22–26, 45, 73, 84–86, 110–14. Schell reintroduced Americans to the physical dangers of nuclear war in this book, marking the beginning of a new outpouring of interest in the subject, and the end of what Paul Boyer called “the big sleep” in a 1982 lecture at the University of Wisconsin.

<sup>23</sup> L. J. Mauth, “Prevention of Panic in Elementary School Children,” *Journal of Education*, 137 (Nov. 1954), 10–14.

<sup>24</sup> Moehle, “Civil Defense Begins with You,” 208–10; L. W. Huber, cited in Meade, “What Programs of Civil Defense Are Needed in Our Schools?” 184; Mauth, “Prevention of Panic,” 11.

broadcast of the "War of the Worlds" had revealed even adults' vulnerability to irrational fear and panic. In retrospect, the imaginary Martian attack that Orson Welles dramatized that Halloween night in 1938 had many of the outlines of an imagined Soviet attack: massive scale, instantaneous reporting, an unknown and apparently unknowable aggressor, and American technological defenselessness. Without referring to Welles's dangerous prank, educators, psychologists, and parents gravely warned one another that fear and panic were the foremost dangers of atomic attack. It is tempting to conclude that "War of the Worlds" lurked somewhere behind those warnings.<sup>25</sup>

If panic was the present danger, fear was the future threat. The long-term psychological effects of childhood emotional trauma had been studied during World War II by Anna Freud and her colleagues, whose writings were popular in American psychology courses. Freud discovered that European children who had endured bombardment and evacuation during the war suffered serious long-term psychological disorders as a result of protracted anxiety and uncertainty.<sup>26</sup>

Educators also drew on an older source of psychological authority. Sigmund Freud's work on anxiety, repression, and neurosis—usually several versions removed from the original—enjoyed wide popularity in the United States after the war. Educators writing about civil defense deduced the long-term implications of childhood anxiety from a vulgar reading of Freudian psychology. "We must make every effort [not to] imbue the child with a fear complex," wrote Arthur C. Anderson in the Iowa teachers' union journal, *Midland Schools*. Some educators misread Freud's concept of repression, assuming that anxiety was always manifested in outward behavior. Under this assumption, educators counted children who exhibited no fear of atomic attack as mentally "well-adjusted." Though they adopted a Freudian vocabulary, these writers glossed over the complexities of repression and diagnosed neurosis only from overt anxiety.<sup>27</sup>

Proponents of the "mature" approach to civil defense, citing Anna Freud's World War II findings, believed it possible to prepare children for the trauma of war. They claimed that well-adjusted children would not be unduly fearful during a crisis. A New York City school psychologist offered the following chilling anecdote to illustrate such adjustment:

The mother of a bright twelve-year-old boy who is a happy, well-adjusted youngster tells of their hearing an explosion one evening. As the father rushed down to the

<sup>25</sup> In 1958 a school fire in a Chicago suburb took the lives of ninety children who panicked. M. Telford, "Chicago School Fire: How it Happened," *Nation's Schools*, 63 (Jan. 1959), 82. For a social-scientific account of response to "War of the Worlds," see Hadley Cantril, Hazel Gaudet, and Herta Herzog, *The Invasion from Mars: A Study in the Psychology of Panic* (Princeton, 1952). Frank and Eleanor Perry's powerful 1963 film *Ladybug, Ladybug* dramatized adults' worst fears: a false alarm of atomic attack sends a terrified child home from school; she panics and suffocates in the makeshift bomb shelter of an abandoned refrigerator.

<sup>26</sup> Anna Freud and Dorothy T. Burlingham, *War and Children: A Message to American Parents* (New York, 1944); Jean A. Thompson, "The Impact on the Child's Emotional Life," *National Elementary Principal*, 30 (June 1951), 30–33; Peter Lewis, *The Fifties* (London, 1978), 45, 63; John Sternig, "For Adults Only," *Nation's Schools*, 47 (March 1951), 31–33.

<sup>27</sup> Arthur C. Anderson, "Our New Civil Defense Program," *Midland Schools*, 67 (Oct. 1952), 22–23.

furnace, the boy went to the window, looked out, remarked casually, "No mushroom cloud," and returned to his homework with a pleasant, reassuring smile at his mother.<sup>28</sup>

Encouraged by such reassurances, educators were quick to count their programs successful in regard to the dangerous problem of fear. In November 1951, when civil defense programs had begun in only a fourth of the nation's schools, Mary Anne Raywid, an official of the National Education Association's Commission on Safety Education and a leading defender of the public schools, claimed victory over fear and panic. It was a "tribute to the manner in which teachers and school officials had handled their civil defense programs" that "only an extremely small number of children have been upset." Other contributors to the *National Education Association Journal* concurred: "Actually, the children took the drills in stride." Adults often pictured themselves as children in face of the Bomb; many seemed desperate to find and embrace this innocent fearlessness, as it contrasted so poignantly with their own very grown-up anxiety.<sup>29</sup>

Its proponents claimed that civil defense instruction in the schools would reassure children that "responsible adults have made all possible provisions for their safety and comfort." Civil defense quickly became not the cause of childhood fears, but the remedy for them. Advocates argued that the "duck-and-cover" air raid drills and civil defense identification tags would give children and their parents a sense of security in an "age of anxiety." Civil defense not only might be taught without risk to young psyches; such teachings could in addition actually prove therapeutic. "Action, and plans for action, make for the release of tension and a greater feeling of safety."<sup>30</sup>

In their early discussions of civil defense and how best to implement it in the schools, educators set the parameters of civil defense debate for the next decade. They explored with great ingenuity and a wealth of pedagogical and psychological tradition the scant leeway between calm awareness of the Bomb, and paralyzing fear. They accepted the narrow terms of the problem without apparent question; the teacher's task was to "arrive at and maintain a correct and delicate balance in the minds of our people between fear and confidence." Teachers must recognize that "fear is our worst enemy"; their job was to "educate the emotions." As FCDA officials liked to say, the challenge was to "alert, not alarm."<sup>31</sup>

<sup>28</sup> Thompson, "Impact on the Child's Emotional Life," 31.

<sup>29</sup> Mary Anne Raywid, "Civil Defense Programs in Fourth of Schools," *Safety Education*, 31 (Nov. 1951), 2, 38. In 1962 she wrote a biting reply to anticomunist attacks on progressive education: Raywid, *Ax-Grinders*. Paul T. Rankin and John W. Pritchard, "More Than a Place to Hide," *Journal of the National Education Association*, 40 (Dec. 1951), 604-5; Edwin R. Van Kleeck, "A is for Atom, B is for Bomb," *National Elementary Principal*, 30 (June 1951), 25. On the breadth and depth of adult fears of the Bomb, see Leonard S. Cottrell, Jr., and Sylvia Eberhart, *American Opinion on World Affairs in the Atomic Age* (Princeton, 1948), 15-24, 101-7; and Boyer, *By the Bomb's Early Light*, 22-24.

<sup>30</sup> Cottrell and Eberhart, *American Opinion on World Affairs*, 11; Anderson, "Our New Civil Defense Program," 22; William M. Lamers, "Identification for School Children," *Journal of the National Education Association*, 41 (Feb. 1952), 99; Katherine D'Evelyn, Marion E. Wiles, and John L. Miller, "What to Do about Air Raid Drills," *Child Study*, 28 (Spring 1951), 21.

<sup>31</sup> "Paralyzing fear" became a cliché. See Boyer, *By the Bomb's Early Light*, 3-26, esp. 12. LaVerne Strong, "Helping Children Face a Critical Period," *Childhood Education*, 28 (Sept. 1951), 12-16, esp. 15; Connecticut Department of Education, *To Alert but Not to Alarm* (Hartford, [1951]); VanKleeck, "A is for Atom, B is for Bomb,"

United in the effort to protect children's delicate psychological health, educators concerned with civil defense systematically, albeit unconsciously, eliminated fearsome vocabulary from their discussions of atomic warfare. A variety of euphemisms replaced the dangerous terms of atomic war: words like *crisis*, *tension*, *emergency*, *real emergency*, *disaster*, *major disaster*, and phrases like *threat to our way of living*, *any emergency which may occur*, *eventualities which may one day become actualities*, stood for specific and technical words like *war*, *death*, *bombing*, *attack*, *battle*, *atomic warfare*, *atom bomb*, and *air raid*.<sup>32</sup> Almost no factual material about the effects of a nuclear war, or of a single atomic bomb, appeared in educational journals during the 1950s. Nor did factual material occupy much space in history textbooks. That is hardly surprising: the only technical authorities on atomic war and its effects were the atomic scientists, who were effectively silenced by the Robert Oppenheimer investigations. The FCDA made only feeble efforts at explaining atomic effects; to have detailed the horrors of an atomic attack would have run counter to the agency's philosophy. Its boldest efforts (such as the 1950 pamphlet *Survival under Atomic Attack*) were replaced in time by less alarming material. From 1951 until 1965, virtually all FCDA material designed for use in the schools, and much of that designed for adult consumption, was cleansed of any fearsome element.<sup>33</sup>

The FCDA produced little material expressly for the classroom; it left that function largely to the Atomic Energy Commission, with its more suitable, positive outlook on the atom's technological promise. At least one document designed for adults, however, was used to teach civil defense to children. It was the ten-cent government pamphlet published in 1950, *Survival under Atomic Attack*. Assistant Superintendent of the Detroit Public Schools Paul T. Rankin, who advocated the "straight-forward teaching of civil defense" as the best means of ensuring children's "emotional security," applauded the use of this graphic pamphlet for fourth graders. Other educators deemed it suitable "for adults only."<sup>34</sup> Although the pamphlet contained more detailed information on the consequences of atomic attack than was typical of classroom materials, it also underscored a familiar and enduring theme: Avoid panic. The authors of the pamphlet asserted that just a few simple precautions

24–28, esp. 24; Rankin and Pritchard, "More Than a Place to Hide," 604–5; "A Civil Defense Program for Parent-Teacher Associations," 34–35, 36; Huber, cited in Meade, "What Programs of Civil Defense Are Needed in Our Schools?" 184; Gordon C. Graham, "Bomb Danger Entails Three Responsibilities," *Safety Education*, 31 (Nov. 1951), 36; Mauth, "Prevention of Panic," 10–11, 14, esp. 11, 14; Urban H. Fleege, "The Teacher and Civil Defense," *Journal of the National Education Association*, 40 (Nov. 1951), 542–43.

<sup>32</sup> See, for example, Raymond E. Pollich, "The Defense Program of Los Angeles City Schools," *National Elementary Principal*, 30 (June 1951), 20–23; Mauth, "Prevention of Panic," 14.

<sup>33</sup> Stephen Kretzmann, "The Bomb in the Schoolroom," seminar paper, University of Wisconsin–Madison, 1983 (in Brown's possession); National Security Resources Board, *Survival under Atomic Attack* (Washington, [1950]).

<sup>34</sup> On the activities of the AEC, see Boyer, *By the Bomb's Early Light*, 107–30. Although the imagery and message of the AEC's "peaceful atom" is pertinent to the question of childhood socialization during the 1950s, the nonmilitary applications of atomic energy are too various and complex to be included here; I have addressed those issues in Brown, "Education and Acquiescence." For discussions of National Security Resources Board, *Survival under Atomic Attack*, see Rankin and Pritchard, "More Than a Place to Hide," 605; "A Civil Defense Program for Parent-Teacher Associations," 34–35; Graham, "Bomb Danger Entails Three Responsibilities," 36; and Sternig, "For Adults Only," 31–33, esp. 31.

could assure survival for everyone but those unfortunates caught within a mile of ground zero.<sup>35</sup>

In the balancing act between "alert" and "alarm," educators generally achieved banality. As civil defense became institutionalized and as some people raised questions about the effectiveness of any civil defense against the powerful hydrogen bomb, the FCDA's initial need for public attention became a need for public acquiescence. As a federal civil defense official much later concluded, "The negative aspect of the message . . . tends to increase, become more persuasive and less manageable as one understands more about the nature of nuclear war."<sup>36</sup>

### Dog Tags and a Turtle: What Happened in the Classroom

Educators concentrated their civil defense activities in two main areas: air-raid drills and identification programs. School administrators were additionally concerned with changes in school architecture, location, and equipment.<sup>37</sup>

Atomic air raid drills were instituted first in the schools of so-called target cities: New York City, Los Angeles, Chicago, Detroit, Milwaukee, Fort Worth, San Francisco, and Philadelphia schools all began the drills between August 1950 and April 1951. Traditional concerns about the delicate relationship between the school and its community figured in the planning. In Los Angeles school administrators were cautious in introducing the new routine, fearing "what would happen if 400,000 young people went home with 400,000 explanations of drills occurring during the first week of school." To avoid panic among *parents*, the Los Angeles school board in September 1950 sent them a letter from the superintendent explaining the nature and purpose of the drills. The superintendent assured parents that the school drill program was "no home brew" but a clear plan, undertaken with expert guidance. He urged parents to entrust their children's welfare to the school authorities during school hours and to remain at home or at work in the event of an actual attack. On a lighter note, the superintendent added that he hoped the drills would be "entirely wasted."<sup>38</sup>

Surprise "cover" drills were held weekly in all Los Angeles schools, public and private, from September 1950 to February 1951. Without warning, the teacher would shout "Drop!" and all of the children would assume a kneeling position, hands clasped behind necks and faces covered. From February until June 1951, the

<sup>35</sup> See Mauth, "Prevention of Panic," 11; Fleege, "Teacher and Civil Defense," 542. National Security Resources Board, *Survival under Atomic Attack*.

<sup>36</sup> Office of Civil Defense, *Civil Defense and the Public*, 14, 32, esp. 14.

<sup>37</sup> "Defense," *School Executive*, 70 (July 1951), 47, citing "Civil Defense—the Architect's Part," published by American Institute of Architects (Washington, 1951); Arsham Amerikian, "Precast Concrete Offers Protection against Atomic Blast," *Journal of the American Concrete Institute*, 47 (March 1951), 497–516. See also advertisement for Architects Can Help in Civil Defense, pamphlet, in *School Executive*, 70 (March 1951), 80. On suburban sites for schools as a civil defense measure, see U.S. Department of Health, Education, and Welfare, *Civil Defense Education Project*, "Information Sheet No. 3," Jan. 20, 1955; Boyer, *By the Bomb's Early Light*, 327–28.

<sup>38</sup> Pollich, "Defense Program of Los Angeles City Schools," 20–23; Joseph M. Galvin, Elden B. Busby, and Quentin D. Groves, "Is Your School Prepared for Atomic Attack?" *Safety Education*, 37 (March 1958), 8. See also "Model Program," *School Executive*, 70 (Aug. 1951), 65; Meredith, "Civil Defense and the Schools," 99–100.

drill came once every two weeks, and monthly thereafter. By the summer of 1951 Los Angeles school officials were considering the additional problem of identification of school children.<sup>39</sup>

The pupils of all 850 public schools in New York City began "sneak attack drills" on February 7, 1951, though no such drills had yet been ordered by the New York State Commission on Civil Defense. That spring, the New York City Board of Education approved a \$250,000 budget for civil defense.<sup>40</sup>

The New York City 1951 school budget for civil defense allocated \$87,000 for metal identification tags. The tags, modeled after military dog tags, were incorporated into most urban school civil defense plans. Though their precise purpose was never made explicit, the tags were designed to aid civil defense workers in identifying lost and dead children in the event of an atomic attack. By February 1952 New York City had spent \$159,000 on equipment and materials to produce two and a half million free dog tags for all public, parochial, and private school children; by April all children from kindergarten through the fourth grade had been tagged.<sup>41</sup>

New York City had the most extensive identification program in the country; other city school boards soon followed suit. One manufacturing company quickly recognized an opportunity: for every dog tag issued, a chain necklace to hold it might be sold. Advertising in the *School Executive*, a journal for school superintendents and school board members, executives of the Bead Chain Manufacturing Company of Bridgeport, Connecticut, followed the progress of school identification programs very closely. In April 1951 their advertisement read, "NEW YORK CITY SCHOOLS ORDER IDENTIFICATION NECKLACES FOR ALL STUDENTS." It applauded the New York City Board of Education for "taking a tip from Uncle Sam, who has many years of experience with identification necklaces" and choosing a "kinkless chain . . . attractive, smooth and comfortable." The ad pictured a young boy comparing his dog tags—on a Bead Chain necklace—with those of a uniformed soldier. Four months later, a new ad proclaimed that "CITIES FROM COAST TO COAST" had adopted necklaces of Bead Chain as a "safeguard for their schoolchildren." In place of a smiling soldier the August 1951 ad pictured a smiling mother-teacher figure proffering a happy boy his necklace.<sup>42</sup> In four short months the dog tag was domesticated. The advertisements, designed only to sell large numbers of Bead Chain necklaces, also increased pressure on school officials outside New York to do something about civil defense.

Many cities adopted the dog tags. Public school children in San Francisco received them free of charge, in a program underwritten by the Board of Education's reserve fund. In Seattle, the PTA managed a tagging program for the public schools, while the parochial schools issued separate tags. In Denver and Detroit no school funds

<sup>39</sup> Pollich, "Defense Program of Los Angeles City Schools," 20–23.

<sup>40</sup> Van Kleeck, "A is for Atom, B is for Bomb," 25.

<sup>41</sup> Lamers, "Identification for School Children," 99.

<sup>42</sup> Advertisement for the Bead Chain Mfg. Co., *School Executive*, 70 (April 1951), 99; Advertisement for the Bead Chain Mfg. Co., *ibid.* (Aug. 1951), 92.



SE-23

**CITIES FROM COAST TO COAST  
adopt identification  
necklaces of Bead  
Chain for students**

From New York City to Redwood, California, many cities across the country are ordering Identification Necklaces as a safeguard for their school children. Each student is being issued a necklace carrying a tag on which is stamped the student's identity and other information necessary for civilian defense.

For this purpose, Bead Chain has long been accepted as standard by our Armed Forces, for whom we have made identification necklaces for many years.

So flexible that it can't kink . . . economical, attractive, comfortable and very strong . . . Bead Chain is also preferred for religious chains and many other products made for personal wear. Write for catalog and complete information.

**B®** The BEAD CHAIN® Mfg. Co.  
26 Mountain Grove St., Bridgeport, Conn.

Advertisement reproduced from *School Executive*, August 1951, p. 92.

were authorized as of February 1952, but the local civil defense officers had recommended that children's clothing be marked. In Philadelphia, metal dog tags were sold in local stores. Parochial schools often organized separate identification efforts, though they were included in the New York City public school identification program.<sup>43</sup>

Army-style dog tags were not the only answer to the problem of child identification. Educators considered several alternatives when they met in 1951 at the Civil Defense Staff College in Maryland. William M. Lamers, assistant superintendent of Milwaukee schools and director of public information for the Milwaukee Civil Defense and Disaster Committee, described the options in an article for the *Journal of the National Education Association*:

Tatooing is considered occasionally, but generally rejected because of its associations and impermanence in the case of severe burns. . . . Marking of clothing is more seriously regarded [but] clothing can be destroyed . . . and is frequently interchanged. Fingerprinting is . . . regarded by some as an infringement of privacy. . . . Cards are easily worn out, stolen or destroyed.

In keeping with the philosophy of calm acceptance, the remarks of Lamers were devoid of any emotion-charged mention of dead children, or indeed of the nature of the disaster itself. His choice of the passive voice, impersonal constructions, and bureaucratic focus eliminated horror from the horrific discussion. Superintendent Lamers concluded, after careful consideration of all available options, that the "wearing of heat- and corrosion-resistant metal tags attached to the body by equally durable chains has been generally accepted. . . . experience shows that a parent-child education program prevents exchanging of tags."<sup>44</sup>

Although the ultimate purpose of the various identification programs was to identify dead, wounded, or lost children, advocates spoke of the dog tag as a talisman—as a sort of secularized St. Christopher's medal—with the power to *protect* children.

Any community will feel more secure if it knows its children have this added safeguard against the dangers of possible peacetime accident and wartime disaster.<sup>45</sup>

Like the carefully orchestrated plans for school drills, identification programs fostered the elusive sense of security in an age of overwhelming anxiety.

While the identification programs in schools domesticated a wartime innovation, the converse also worked: a domestic, often comic, cultural form for children helped tame the terrible message of civil defense. The most widely distributed and most

<sup>43</sup> A participant in a Smithsonian Institution seminar in April 1986 related that some Catholic school identification tags had pupils' names stamped on one side and the Lord's Prayer stamped on the reverse, but I have not been able to confirm the fact. John W. Pritchard, "Detroit's Plan for Coping with Possible Disaster from the Air," *Nation's Schools*, 47 (April 1951), 35.

<sup>44</sup> Lamers, "Identification for School Children," 99.

<sup>45</sup> *Ibid.* See also "Defense," 67; "Identification Tags for NYC School Pupils," *School Executive*, 70 (March 1951), 78–79; "Give NY Children Identification Tags," *Safety Education*, 31 (Feb. 1952), 16. In the 1980s, school fingerprinting campaigns against kidnapping have a similar magical appeal.

memorable of FCDA publications designed for children was its first, a comic book featuring Bert the Turtle. Bert's message to kids was simple: atomic attack is no different from many other forms of everyday danger, and responses to it no different from other safety routines. In three million pamphlets distributed to schoolchildren, Bert the Turtle chirped:

You have learned how to take care of yourself in many ways—to cross streets safely . . . what to do in case of fire . . . BUT the atomic bomb is a new danger. . . . Things will be knocked down all over town. . . . You must be ready to protect yourself.

Bert the Turtle also appeared in the official U.S. Civil Defense animated film *Duck and Cover*, in which his matter-of-fact advice was set to cheery music.<sup>46</sup>

*Duck and Cover* typified the way both educators and FCDA officials handled civil defense for children. Instruction and drill were typically purged of all frightening elements and were implemented with a perverse cheeriness. The net effect was a bizarre disjuncture between the known consequences of atomic war and the playful precautions of people living under its threat. Ironically, in light of the popularity of Freudian theories, the determined lightheartedness illegitimized everyone's fears about the Bomb and fostered (according to Freudian theory, at least) a dangerous and widespread psychology of repression.<sup>47</sup>

### Domesticating the Bomb

Educators implemented the matter-of-fact philosophy of civil defense by making the Bomb and all of its implications ordinary. There is no graceful verb in English to describe such a transformation from the unthinkable to the banal; the Yale psychologist Robert Jay Lifton, who has written extensively on American and Japanese reactions to the Bomb, calls the phenomenon "domestication."<sup>48</sup> Educators domesticated the Bomb for the sake of their children's mental health; they tamed its most fearful aspects and put it to work on their favorite projects.

Certain school subjects, such as home economics, lent themselves particularly well to the domestication of the Bomb. The FCDA published a pamphlet in 1957 outlining civil defense activities for high school girls in home economics classes. The pamphlet included directions for furnishing and decorating a bomb shelter and for stocking it with provisions such as home-canned water.<sup>49</sup>

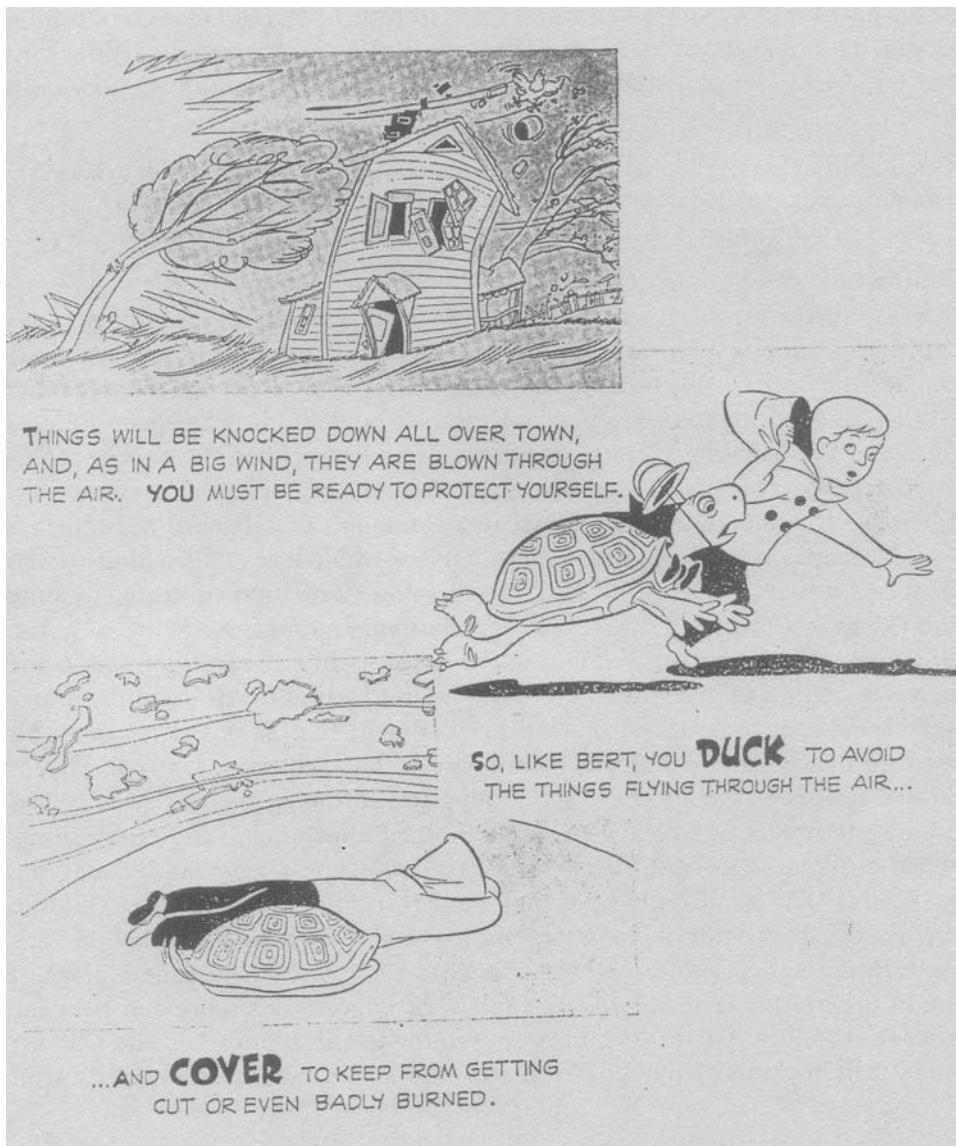
Civil defense was easily integrated into another mundane school subject, safety education. In the name of civil defense, Wisconsin seventh graders mobilized to re-

<sup>46</sup> Federal Civil Defense Administration, *Bert the Turtle Says "Duck and Cover"* (Washington, [1950]), n.p.; Meade, "What Programs of Civil Defense Are Needed in Our Schools?" 183; Grace Storm, "Civil Defense Film for Schools," *Elementary School Journal*, 52 (Sept. 12, 1951), 12. The *Duck and Cover* animated film was produced by Archer Films in 1951.

<sup>47</sup> For the suggestion that such repression accounts for the youth rebellion of the late 1960s, see Robert Jay Lifton, *The Broken Connection: On Death and the Continuity of Life* (New York, 1979), 337–87.

<sup>48</sup> *Ibid.*; Michael J. Carey, "Psychological Fallout," *Bulletin of the Atomic Scientists*, 38 (Jan. 1982), 20–24.

<sup>49</sup> Federal Civil Defense Administration, *Civil Defense Educational Practices and References for Homemaking Classes, Classroom Practices* (Washington, [1957]), n.p.



Excerpts from Federal Civil Defense Administration pamphlet,  
*Bert the Turtle Says "Duck and Cover"* (Washington [1951]), n.p.

pair broken handrails and to help install better lighting in school buildings. Mary Anne Raywid, speaking for the National Education Association's Commission on Safety Education, applauded this integrative approach to civil defense. Wise educators, she argued, "see an air attack as another potential hazard of modern living." Air raid drills, like fire drills, were just "an intelligent precaution against another

possible danger.”<sup>50</sup> W. Gayle Starnes, the director of the FCDA Division of Education and Training, concurred. Echoing Bert the Turtle, Starnes reminded educators that they themselves practiced some form of civil defense “in almost every daily function.”

You teach your own children to be careful in traffic, to seek first aid . . . to beware of dangerous situations. . . . any endeavor which seeks to preserve and further our life, liberty and pursuit of happiness can be considered a form of civil defense.<sup>51</sup>

Educators incessantly compared air raid drills to fire drills, implying that atomic attack was similarly discrete and that casualties were preventable. The soothing repetition of such analogies diverted attention from the horrifying aspects of civil defense and made the unthinkable ordinary. “The term civil defense means infinitely more than the designation of a federal agency,” Starnes offered. “It is our way of life.”<sup>52</sup>

Teachers used traditional classroom methods and principles of behavior modification to make civil defense a part of school routine. The supervisor of the Detroit public schools’ Safety Education Department, Gordon C. Graham, boasted that “much has been done to condition children to the whole idea of air-raid drills.” So that the children of Detroit would not develop “unwarranted fears,” despite Detroit’s being a “target” city, schoolteachers arranged for song singing, storytelling, and record playing, as well as “similar devices while the children are in the refuge area.” Other writers noted that children would accept the drills calmly if they learned them in stages, as the behaviorist psychologist B. F. Skinner had taught his pigeons to dance. A school official from Newton, Massachusetts, Harry L. Walen, described his town’s victory over fear: “Youngsters in the elementary schools vied with one another to see which room could proceed most quietly and rapidly to its assigned position,” he noted. “There was a kind of *esprit de corps* in learning the rules of this new game.” One Newton kindergarten teacher had her children decorate the school bomb shelter as a “reading den,” papering the brick walls with their drawings and placing small chairs around the room. “It became a pleasant break in the routine of certain days of the week to go to this room and hear the teacher read a story. There was no fear in walking to this room when the bell was sounded.” By making the civil defense drill into a game, the teachers of Newton

<sup>50</sup> Herold C. Hunt and James J. Griffin, “Re-Examine Your Goals in Safety Education,” *Safety Education*, 31 (May 1952), 2; Thomas Zuhlke and Anthony V. Ingrelli, “Civil Defense a Core for Many Learnings,” *ibid.* (April 1952), 4; Raywid, “Civil Defense Programs in Fourth of Schools,” 39, 38.

<sup>51</sup> Starnes, “Schools and Civil Defense,” 21; Raywid, “Civil Defense Programs in Fourth of Schools,” 38–39. See also Jack T. Johnson, “Protective Citizenship—Its Educational Implications,” *School Life*, 35 (Sept. 1953), 150–51; Hunt and Griffin, “Re-Examine Your Goals in Safety Education,” 2, 31; “Civil Defense and the School Principal,” *Bulletin of the National Association of Secondary School Principals*, 36 (Oct. 1952), 11–22, esp. 16; Meredith, “Civil Defense and the Schools,” 99–100; Dana B. Roblee, “Civil Defense—a Challenge to Education,” *School Life*, 35 (Feb. 1953), 74–75; Lamers, “Civil Defense and Disaster Program,” 2–4, 13.

<sup>52</sup> On metaphor and politics, see Murray Edelman, *Political Language: Words That Succeed and Policies That Fail* (New York, 1977); and JoAnne Brown, “Professional Language: Words That Succeed,” *Radical History Review*, 34 (Jan. 1986), 33–51. Starnes, “Schools and Civil Defense,” 21; Johnson, “Protective Citizenship,” 150; Hunt and Griffin, “Re-Examine Your Goals,” 31; “Civil Defense and the School Principal,” 16; Meredith, “Civil Defense and the Schools,” 99; Roblee, “Civil Defense—a Challenge to Education,” 74–75; Lamers, “Civil Defense and Disaster Program,” 2.

not only gained the cooperation of their young charges, but doubtless also banished some of their own anxiety, however briefly.<sup>53</sup>

### **"Double Duty": School Architecture and the Bomb**

When faced with the pedagogical problems of teaching an adult subject to children, educators responded by domesticating the Bomb, at the same time demanding a new standard of emotional maturity of themselves and their children. When faced with the harder structural problems of adapting school buildings and equipment to the physical threat of atomic attack, school administrators and architects responded with a philosophy they sometimes termed "double duty." It was a pragmatic philosophy, but one not without aesthetic principle.

Structural changes in the physical school plant that were required for civil defense were repeatedly justified in terms not related to civil defense. Such dual arguments reflected the fundamental contradiction in the national defense policy of deterrence: Prepare for war in order to keep the peace. If such preparations are successful, peace will prevail, which makes its own daily demands on institutions like public schools. For educational administrators, the contradiction was embodied in the practical problem of preparing for civil defense without subverting the primary, peacetime functions of education.<sup>54</sup>

Civil defense planners viewed as a "rare opportunity" the presence of schools in the suburbs, where there were few hospitals in the 1950s. Schools that could serve as bomb shelters and evacuation centers "in or near all communities should go a long way toward restoring a certain feeling of security lost to us since the emergence of the H-bomb." For their part, educators worried that schools would be wrested from their control in the event of an emergency; by volunteering the school plant as an emergency center, one school administrator in Detroit reasoned, they could assure that "school people, not volunteers, will be in charge."<sup>55</sup>

The public schools were losing teachers and building supplies to the war effort in Korea even as enrollments soared.<sup>56</sup> Having answered the call to civil defense, in part to bolster their beleaguered professional image, educators strained to make

<sup>53</sup> Graham, "Bomb Danger Entails Three Responsibilities," 4. For the comparison with B. F. Skinner's experiments on pigeons, see Rankin and Pritchard, "More Than a Place to Hide," 604. Harry L. Walen, "A School Program in Civil Defense," *Educational Leadership*, 9 (Nov. 1951), 93.

<sup>54</sup> Earl James McGrath, "Education and the National Defense," *School Life*, 33 (Nov. 1950), 18; J. R. Wiggins, "Commencement, 1952," *Journal of the National Education Association*, 41 (May 1952), 271.

<sup>55</sup> Ralph Lapp, *Must We Hide?* cited in Boyer, *By the Bomb's Early Light*, 321. On dispersion of population after 1950, see Kenneth Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York, 1985), esp. 231–45; Boyer, *By the Bomb's Early Light*, 326–27; Ralph E. Lapp, "Industrial Dispersion in the United States," *Bulletin of the Atomic Scientists*, 7 (Sept. 1951), 256–59. Walter Rein, "Double Duty for School Plants," *American School Board Journal*, 133 (Aug. 1956), 23; Graham, "Bomb Danger Entails Three Responsibilities," 5; James M. Ridgway, "Should Schools Be Closed in World War III?" *ibid.*, 131 (July 1955), 17, 18, 58; Huber, cited in Meade, "What Programs of Civil Defense Are Needed in Our Schools?" 187; Lloyd C. McCann, "Schools and Civil Defense," *American School Board Journal*, 145 (Dec. 1962), 10.

<sup>56</sup> Total public school enrollments jumped from 25 million in 1950, to 30 million in 1955, to 40 million in 1965. See U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970, Part I* (Washington, 1974), 368.

every cent and effort spent on civil defense count doubly, toward everyday classroom exigencies as well as toward remote and vague “disasters” and “eventualities.” That practical imperative contributed to the conceptual domestication of the Bomb. During the 1950s the problem of double duty was relatively slight, but in the 1960s, when school boards were called upon to construct community fallout shelters, the administrative issues grew urgent.

Between the 1920s and the mid-1950s, many American schools were built with one entire wall of windows in each classroom.<sup>77</sup> The “wall of light,” as it was called, was a vestige of Progressive Era reforms intended to improve the lighting and ventilation in schoolrooms. A “wall of light” suddenly became a “wall of death” in the overwrought imaginations of some civil defense advocates when they recognized the effects of an atomic blast on such a design. One Los Angeles school architect, Walter Rein, proposed to local school board members a double duty response to that horrifying possibility. Rein suggested purchasing “bomb curtains” made of woven graphite, which would not only shield children from flying glass and atomic radiation but also provide ample darkness for the use of modern audiovisual equipment. “The wisdom can hardly be over-emphasized,” Rein wrote, “of designing our new schools with their second function in mind, namely, of caring for the well, injured, contaminated and dead.”<sup>78</sup>

Between 1958 and 1968, in response to a booming school population, school construction increased sharply. The double duty theme was extremely popular with school architects, to whom it posed both a professional challenge and a patriotic obligation. In 1962, after President John F. Kennedy had declared mass fallout shelters an urgent priority for civil defense, the American Institute of Architects and the Department of Defense jointly sponsored the National School Fallout Shelter Design Competition. Its object was to promote designs that would provide fallout protection for schoolchildren and the surrounding community “without interfering in any way with the primary function of the school.” Contest judges gave poor aesthetic marks to designs that made their grim function obvious. A third-prize design by Massachusetts architect John Chornyak drew this mixed evaluation:

Shelter design criteria are fully met with economy of construction. However, the steel culvert entrances were considered unnecessarily crude. The use of screen walls at entrances and a more sculptured use of earth as demonstrated in several of the award winning entries would improve the design.<sup>79</sup>

A common solution to the problem of designing schools with fallout shelters was “a minimum of windows,” as a 1966 civil defense pamphlet prescribed. Junior High School No. 55 in Brooklyn, New York, a five-story reinforced concrete structure

<sup>77</sup> See advertisements, *American School Board Journal*, 120 (Jan. 1950); advertisements, *ibid.* (March 1950); American Medical Association, Joint Committee on Health Problems in Education, *Daylight in the Schoolroom: A Report on the Best Methods of Providing Daylight in Various Types of School Buildings* (Chicago, c. 1935). On the significance of the picture window, see Thomas Hine, *Populuxe* (New York, 1986), 49.

<sup>78</sup> Rein, “Double Duty for School Plants,” 23–25; “Bomb Curtain,” *School Executive*, 70 (July 1951), 61.

<sup>79</sup> U. S. Department of Defense, Office of Civil Defense, *Schools Built with Fallout Shelter* (Washington, [Feb. 1966]), esp. 1, 36. See also Rankin and Pritchard, “More Than a Place to Hide,” 604–5.

erected in 1964 to house nineteen hundred students, is a monument to civil defense concerns. "The exterior of the building is essentially windowless," noted a civil defense official, but, he added reassuringly, "the decision to design without exterior windows was based solely on operating and maintenance considerations." "Protective features" were incorporated into the Miami Springs, Florida, senior high school "as dual-use space most subtly, without sacrifice of aesthetic or functional values." The Blackwell Senior High School in Blackwell, Oklahoma, built in the early sixties, boasted "a little theater" that "carries out the theme of personalized learning—and also provides an emergency facility that is dual-purpose in its own right, protecting the community against possible fallout hazards and probable tornadoes."<sup>60</sup>

From the midfifties onward, civil defense officials reminded their public that fallout shelters and evacuation plans were designed to save lives in natural, as well as man-made, disasters. That policy had some justification: in the 1950s the United States experienced a series of hurricanes, tornadoes, and ice storms that claimed three to six hundred lives each year, a dramatic increase over the death tolls in the 1940s. In 1951 financial losses from a single natural disaster first topped one billion dollars. During one twenty-four-hour period in March 1952, thirty-one tornadoes hit six states, killing 315 people and leaving over 5500 injured. In May and June of 1953, three killer tornadoes hit Waco, Texas; Flint, Michigan; and Worcester, Massachusetts. The Worcester tornado, which killed 94 people and injured 1,306 in a region thought invulnerable, did more than any other natural disaster to reinforce American fears of sudden calamity. Those fears, the product of sheer circumstance, lent power to arguments for atomic-war preparedness.<sup>61</sup> In the late 1960s, fortress-like construction found a new rationale, as a bulwark against civilian political violence, but fortified school architecture predates the Vietnam War-era protests. The double duty idea, a product of both the credo of calm acceptance and of reaction to natural forces, powerfully affected American civil defense philosophy and practice and drastically changed the shape (and color) of the "little red schoolhouse."<sup>62</sup>

Just as teachers had incorporated bomb drills into classroom routine playfully, to soften their negative psychological impact, architects incorporated bomb shelters into school buildings subtly, to soften their negative aesthetic impact. Members of both groups, merely by following the traditional dictates of their professions, effectively tamed and cultivated their corners of the atomic wasteland. In school architec-

<sup>60</sup> Office of Civil Defense, *Schools Built with Fallout Shelter*, 22, 50, 4, 36, 40, 44. "Double duty" was also applied to the problem of school-community relations: see Maurice F. Seay, "Community Schools and Civilian Defense," *School Executive*, 70 (April 1951), 11.

<sup>61</sup> Jay Robert Nash, *Darkest Hours: A Narrative Encyclopedia of Worldwide Disasters from Ancient Times to the Present* (Chicago, 1976), 424–25; James Cornell, *The Great International Disaster Book* (New York, 1976), 144–51, 176–84. It may be assumed that the reverse also obtained: fears of atomic attack lent force to American reactions to natural disaster. However, political debate ran toward justifying war defense in terms of defense against natural disasters.

<sup>62</sup> John R. Ludington, "It Could Happen Here," *School Life*, 37 (March 1955), 97–98; Norman E. Borgerson, "Safety and Civil Defense: A New Approach," *Safety Education*, 35 (Dec. 1955), 16; "Preparations in Walla Walla," *ibid.*, 46; Galvin, Busby, and Groves, "Is Your School Prepared for Atomic Attack?" 8; Office of Civil Defense, *Civil Defense and the Public*, 8.

ture as in classroom drill, the threat of atomic war was domesticated, cleansed of its alarming aspect, and assimilated into daily routine. These professionals were not necessarily either fools or villains; the enormity of the atomic horror intensified conventional ideals—professionalism, beauty, loyalty, thrift, playfulness—investing them with a poignant, life-affirming importance.

Civil defense became a way of life in American schools, not by the concerted efforts of federal agents, but in piecemeal fashion, as each group incorporated the new demands of the atomic age into its traditional preoccupations. The Federal Civil Defense Administration provided steady encouragement, but it was teachers and school administrators at the state and local levels who brought civil defense programs to life and translated fear into routine. Critics of the public schools assured, albeit sometimes unwittingly, that the professional concerns of educators would address national security. Teachers of very young children invented games that would reduce the potential for emotional trauma. Teachers of older children used civil defense to enliven otherwise boring curricula. School psychologists celebrated well-adjusted children. School planners and architects incorporated shelter principles in their new school designs, as subtly and economically as they could. All those separate professional concerns conducted to teach a generation of children nothing about the horror of nuclear war. Children were taught that civil defense was just another “precaution”—and atomic holocaust just another “hazard”—of everyday life. Moreover, a generation received a lesson in school that has had profound consequences for contemporary political culture: the congeries of good and professional motives that effected school civil defense programs taught a generation to equate emotional maturity with an attitude of calm acceptance toward nuclear war. The anger, fear, and disillusionment that have followed as this generation grew to adulthood are in large measure the postponed cost of a mistaken alliance, of small and practical compromises that subverted education for national defense, traded away knowledge for security, and substituted banality for unmitigated horror.